

nation's networks. Finally, other carriers, such as Williams, are of limited competitive value because, regardless of the "length" of their networks, they utilize only one fiber strand. This arrangement provides for very limited capacity and minimal network stability in case of a fiber break or other outage.

### III. MARKET ENTRY

#### 1. ENTRY BARRIERS

62. The supply of facilities based interexchange services is characterized by substantial barriers to entry. By this I mean that entry is neither quick nor riskless. While it takes time to enter most markets, the interexchange industry stands out for the amount of time it takes to enter. The current second-, third-, and fourth-ranked carriers were all formed before AT&T's 1984 divestiture.<sup>17</sup> Fifteen years later, the pecking order has hardly changed, and AT&T still dwarfs the other carriers. If entry were easy, we would expect to have seen much more change. The airline industry, for example, has seen considerably more entry and exit. Gone are Eastern and PanAm, and TWA is a much less significant player than it used to be.

63. The Justice Department's methodology to assess whether committed entry would deter or counteract a competitive effect of concern requires the examination of timeliness, likelihood, and sufficiency, in that order. Specifically,

"The first step assesses whether entry can achieve significant market impact within a timely period. If significant market impact would require a longer period, entry will not deter or counteract the competitive effect of concern."<sup>18</sup>

"in order to deter or counteract the competitive effects of concern, entrants quickly must achieve a significant impact on price in the relevant market. The Agency generally will consider timely only those committed entry alternatives that can be achieved within two years from initial planning to significant market impact."<sup>19</sup>

64. Neither *de novo* entry nor expansion of capacity by existing hybrid carriers can be considered timely under these criteria. A substantial outlay of both capital and human resources is necessary provide the interexchange services and features that customers demand. Carriers

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<sup>17</sup> LDDS (WorldCom's predecessor entity) was first organized in 1983. See SEC Form S-4 for LDDS Communications, filed Nov. 21, 1994, p. 8. (Joint Proxy Statement in connection with LDDS's purchase of IDB).

<sup>18</sup> Department of Justice and Federal Trade Commission, *Horizontal Merger Guidelines*, April 2, 1992, Section 3.0 (Entry Analysis - Overview).

<sup>19</sup> *Id.*, Section 3.2 (Entry Analysis - Timeliness of Entry).

must deploy transmission and switching equipment, instead of simply installing fiber optic cable. They must also establish sufficient POPs to obtain national coverage. The capital investment to establish these facilities is simply enormous. While it is feasible, experience shows that it could take up to a decade to accomplish such a presence. Capital markets, contrary to the claims of MCI's and WorldCom's experts Carlton and Sider,<sup>20</sup> are far from perfect in this regard, as evidenced by the market's negative reaction to MCI's announcement in 1997 that it would lose \$800 million in attempting to enter the local market.

65. In addition to the investment in physical facilities, substantial employee-hour investment is also needed to write and refine the software required to provide the enhanced features that represent a key source of competitive advantage in the industry. Such software includes signaling systems, operational support systems, enhanced product platforms, and billing systems. It also takes a substantial length of time to "get to market" with a viable wholesale offering. Ordering platforms, POPs, switches, and Operational Support Systems are the key elements of such an offering. For example, deployment of POPs to achieve a national footprint is time-consuming. WorldCom is a case-in-point, as it took nearly four years to double its POP count (as shown in Exhibit 15), and it still does not provide fully ubiquitous coverage to the entire United States. Nevertheless, WorldCom still stands considerably ahead of the second-tier interexchange networks in terms of coverage, network deployment, and product platform engineering.

66. The issue of sunk costs deserves special consideration. In his separate *Declaration*, MCI-WorldCom expert Robert Hall claims that "[f]ew of the costs of transmission capacity in the long-distance business are sunk, because there is an active market where an unsuccessful entrant...could sell or lease facilities to other retail sellers."<sup>21</sup> First, Hall's characterization assumes that fiber lines equate to "transmission capacity." Second, Hall's characterization is not consistent with the Merger Guidelines:

"Sunk costs are the acquisition costs of tangible and intangible assets that cannot be recovered through the redeployment of these assets outside the relevant market [emphasis added] .... Examples of sunk costs may include market-specific investments in production facilities .... A significant sunk cost is one which would not be recouped within one year."<sup>22</sup>

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<sup>20</sup> Affidavit of Dennis W. Carlton and Hal S. Sider on behalf of WorldCom and MCI, in Petition of WorldCom, Inc. for Approval to Transfer Control of MCI Communications Corporation to WorldCom, Inc., before the New York State Public Service Commission, Case 97-C-1804, filed February 16, 1998, para. 5.

<sup>21</sup> Robert E. Hall, *Declaration*, In the Matter of Applications of WorldCom, Inc. for Transfers of Control of MCI Communications Corporation before the Federal Communications Commission, CC Docket No. 97-211, January 26, 1998, para. 72.

<sup>22</sup> Department of Justice and Federal Trade Commission, *Horizontal Merger Guidelines*, April 2, 1992, Section 13.2 (Firms That Participate Through Supply Response).

67. Under the Merger Guidelines' definition there are numerous sunk costs involved. The tangible assets cannot be recovered outside of the relevant market, as the only practical use for an interexchange network is the provision of interexchange service. Transmission assets in particular are geographically specific and are very difficult to redeploy. In addition to the physical assets themselves, an entrant needs to make substantial investment in the engineering of the network equipment that is required to create a functioning interexchange network.<sup>23</sup> These intangible assets created through expenditure of numerous man-hours can not be easily be sold or leased to another entrant, unlike basic fiber cables. Finally, an entrant is unlikely to recoup the cost of a fiber-based interexchange network within one year. I therefore conclude that Hall's characterization is wrong, and that the costs associated with the provision of interexchange service are largely sunk.

68. Facilities-based entry that has been observed so far in the interexchange industry cannot be described as "timely," and therefore such entry cannot be counted on to deter or counteract the anticompetitive effects of the MCI-WorldCom merger. However, for completeness I will consider the next two steps of entry analysis: likelihood that entry would be profitable at pre-merger prices, and sufficiency of entry to deter the merger's anticompetitive effects.

69. A critical consideration when examining the likelihood of entry is whether entrants may flexibly choose their scale.<sup>24</sup> While there is an ambiguity as to how big a facilities-based interexchange carrier needs to be in order to compete effectively, there are some clear sources of density and scope economies which suggest that the scale of operation in a nationwide market is a serious consideration. These concerns are heightened by the consideration that the merger will exacerbate the asymmetry between the Big Three and the next largest facilities-based carriers, as shown in Exhibit 16.

70. The precise level of investment in physical facilities is a major decision in deploying interexchange networks. There are numerous combinations of cables, switches and other electronic components that can meet the expected demand on the network. However, a network must be constructed at a certain minimum scale, or it will not be efficient to operate. For example, a carrier must decide which electronics (e.g. OC-3 or OC-12) to install. This and all other decisions are contingent on the system's expected volume levels. Carriers simply cannot operate on a "build and they will come" basis because of the large capital outlays required and the substantial amount of time required to build a customer base. The ability to capture demand before entry through long-term contracts is limited due to the fact that consumers are largely atomistic and often demand that a carrier have a proven track record before they commit their business. The relatively high volume users such as large businesses are particularly sensitive to these quality and reputation considerations. On the other hand, residential users who might be

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<sup>23</sup> See *supra* section "Required Inputs," page 7.

<sup>24</sup> Department of Justice and Federal Trade Commission, *Horizontal Merger Guidelines*, April 2, 1992, Sections 3.3 (Likelihood of Entry) and 3.4 (Sufficiency of Entry).

more willing to go with an unknown entity also exhibit the highest switching costs and reluctance to enter into long-term contracts for communications services. Therefore, entrants can not add capacity far in advance of traffic. For example, Qwest's proposed purchase of LCI can be rationalized by the need to add LCI's traffic to a partially-built high-capacity network which is currently largely unutilized.<sup>25</sup> The economies of operation of smaller carriers are therefore an important consideration when applying the "likelihood" criteria to potential entry.

71. Professor Hall is wrong when suggesting that there is an "absence of increasing returns in the long-distance market."<sup>26</sup> Even WorldCom's and MCI's Joint Proxy Statement points directly to the claimed cost advantages that the companies will be able to reap by combining their operations. While I believe that the claimed efficiencies are overstated and do not outweigh the anticompetitive effects of the transaction, it is clear that the interexchange business is characterized by strong returns to route density. The very fact that many entrants do not have full LATA coverage, but instead target high-density LATAs first, is proof of the economies of route density. These economies reflect themselves in the price differential between transport to a LATA which is "on-net" and to a LATA which is "off-net," as shown in Exhibit 10.

72. These economies of density are particularly strong when we consider the capacity required to connect an interexchange carrier's POP with its backbone network. For example, a typical retail price reported for a DS-1 (1.5 Mbps) between New York and Chicago is approximately \$8,000 per month, while a DS-3 connection (45 Mbps) on the same route could cost about \$80,000 per month.<sup>27</sup> The increase in capacity is nearly thirty-fold, while the cost increase is ten-fold. Therefore, if a carrier can generate sufficient traffic to upgrade the link between a POP and the backbone network from a DS-1 to a DS-3, the average cost per minute of the connection can be reduced by two-thirds. Using the same example, if this DS-3 line is only 33% loaded (that is, traffic on the line averages only 33% of its maximum capacity), then the average retail price per minute of this connection would be as low as 0.8¢ per minute,<sup>28</sup> which is much lower than the typical price available on a wholesale per-minute basis previously reported in Exhibit 10. In addition, there are substantial discounts to be had on DS-3 pricing for wholesale volume and term commitments. It is therefore clear that there are substantial economies of traffic density on any specific route.

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<sup>25</sup> See *supra* note 9. Qwest's 1997 revenues from interexchange services were only \$115 million, or less than one-tenth of LCI's revenues. See Qwest Press Release "Fourth Quarter Communications Services Revenue Increases 80 percent," February 11, 1998.

<sup>26</sup> Hall Declaration, para. 73.

<sup>27</sup> Network World Decision Support Series, "Using the Internet as the Corporate Virtual Private Network," January, 1998. Available at <http://www.nwfusion.com/research/vpn0198.html>, downloaded March 9, 1998.

<sup>28</sup> Obtained by dividing the monthly cost of the DS3 line by its minute-of-use capacity and the loading factor ( $\$80,000 \div 672 \text{ channels} \div 30 \text{ days} \div 24 \text{ hours} \div 60 \text{ minutes} \div 33\% \text{ load} = 0.8¢ \text{ per minute of use}$ ).

73. Further, there are economies of scope between routes. For example, adding a route between Minneapolis and Chicago may allow a company to feed additional traffic onto its Chicago-Dallas route, further lowering its average cost. There are also many sources of economies of scale: as providers grow in size, they find it economic to deploy their own signaling networks and invest in creation of enhanced services and functionality. WorldCom is an excellent example, having just deployed its own SS7 network, and having committed itself to the creation of enhanced services such as virtual private networks. Fringe competitors instead tend to rely on independent suppliers of SS7 connectivity such as Illuminet and have not even begun to invest in enhanced services.

74. These economies imply that entrants in the interexchange industry are likely to operate at a substantial operational cost disadvantage against large incumbents. Again, POPs provide a good indicator of these economies. As shown in Exhibit 17, while large carriers have more POPs than small ones, fewer additional POPs are needed for each incremental billion dollars of revenue. In this light, Hall's unsupported assertion that MCI is equally profitable as AT&T is meaningless,<sup>29</sup> as he does not consider operational cost advantages which may be squandered through excessive advertising. Hall does not even offer any specific data in support of his assertion, and one cannot therefore know if he makes the required distinction between economic and accounting profitability.

75. The final step in a comprehensive entry analysis is the examination of an entrant's ability to respond the sales opportunities opened by the post-merger anticompetitive effects. For example, the Merger Guidelines identify the situation where certain tangible and intangible assets required for effective entry remain under incumbent control.<sup>30</sup> The substantial economies of scale, scope and density in interexchange networks create just such a situation. In their recent *Declaration* before the FCC, MCI-WorldCom experts Dennis Carlton and Hal Sider claim that "[w]ithin about two years..., there will be seven national fiber optic networks."<sup>31</sup> However, their accompanying analysis relies on mere company announcements, on new "potential entrants," and on fiber deployment alone – nowhere do they address the equipment needed to connect these fiber backbones to POPs and eventually to local exchange networks. Fiber by itself is not "capacity," *per se*. A national fiber network is useless if it cannot connect with end-users through numerous and varied points-of-presence. Given this superficial analysis, seven networks within two years appears ambitious at best. Furthermore, Carlton and Sider ignore the locational specificity of these new networks. These new networks to which Carlton and Sider refer only aim to connect the major interstate corridors, and will do little to alleviate the post-merger

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<sup>29</sup> Hall *Declaration*, para. 73.

<sup>30</sup> Department of Justice and Federal Trade Commission, *Horizontal Merger Guidelines*, April 2, 1992, Section 3.4 (Sufficiency of Entry).

<sup>31</sup> Dennis W. Carlton and Hal S. Sider, *Declaration*, In the Matter of Applications of WorldCom, Inc. and MCI Communications Corporation for Transfer of Control of MCI Communications Corporation to WorldCom, Inc. before the Federal Communications Commission, CC Docket No. 97-211, January 25, 1998, para. 33.

dependence of entrants on the Big Three for capacity to, from, and between smaller cities and rural areas. Even if these backbone networks are eventually fully built-out, the new networks to which Carlton and Sider refer will still remain reliant on capacity provided by the Big Three and WorldCom.

76. A useful way to understand the extent to which entrants will need to rely on incumbents' capacity is to review the time it has taken WorldCom to develop its own capacity to self-supply its POPs, its transport from the backbone to the POPs, its signaling, and its enhanced network services. Even 5 years after becoming a \$1 billion company, WorldCom is only now beginning to surmount the economies of scope, scale and density in interexchange services. I understand that WorldCom has just made operational its own signaling system 7 (SS7) network and has committed to develop various enhanced services for its resellers (including GTE). Although WorldCom increased its points-of-presence by 47% in 1997, it still does not have a POP in every LATA. It is in the process of building out the "capillaries" of its network and is now large enough to achieve economies of density on thin routes comparable to those of the Big Three. And with its purchase of Metropolitan Fiber Systems and Brooks Fiber Properties, it is about to reap economies of scope between the production of interexchange services and local services.

77. There is little reason to believe that "new" interexchange carriers will take less time to achieve the same network economies as WorldCom. Consider that companies such as Frontier, LCI and Excel only passed the \$1 billion revenue mark in 1996; they are just now where WorldCom was approximately 5 years ago.<sup>32</sup> Alternative networks do not have the same reach as the larger carriers – nor is it easy for them to develop it, considering the economies of route density. Technology is making the scale of operation more important; for example, the efficient choice of transmission speed has just recently quadrupled, from OC-48 to OC-192. I therefore conclude that even when entry does occur in the interexchange business, it will remain reliant for quite some time on assets controlled by incumbent suppliers and will therefore not be sufficient to check the anticompetitive effects of MCI-WorldCom merger.

## **2. MARKET ENTRY THROUGH RESALE**

78. As my analysis shows, a prospective carrier simply cannot enter the market from day one as a genuine facilities-based carrier. True, the entry barriers are lower if the carrier accepts that its business will largely or entirely consist of reselling minutes provided by an existing carrier, and that its product scope will be confined to little more than basic 1+ voice services. The significant time and resources required to compete precludes initial facilities-based entry; instead, entrants must rely to great extent on resale. A prospective carrier thus enters the market as a reseller, or at best, a hybrid.

79. Resale has been for some a staging point for facilities-based entry. When MCI and Sprint first entered, they supplemented their own facilities with those of AT&T in order to offer

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<sup>32</sup> Federal Communications Commission, *1996 Statistics of Communications Common Carriers*, Table 1.4, p. 7.

national coverage. Similarly, WorldCom was first a reseller (then known as LDDS) and gradually built up a network presence, both organically and through acquisition, such as through its purchase of WilTel and Metromedia. This pattern continues: Excel, the largest reseller, is in the process of installing its own switching capacity, although it will remain dependent for some time on transmission capacity provided by others. Regional carriers such as Frontier are slowly expanding to provide national service by first reselling and leasing transport to supplement their existing network, and then building facilities. Qwest, it should be noted, was originally known as SP Telecom, primarily operating as a reseller.<sup>33</sup> All of the entrants discussed by MCI-WorldCom experts Hall, Carlton and Sider operate to some degree as resellers, although these experts do not recognize the importance of resale for full market entry. Almost all entry into the interexchange industry has been regional and/or dependent on resale, only later to be followed by facilities-based expansion to move towards national coverage. GTE is following this same, standard approach, but it appears that it will take GTE in excess of five years for it to achieve a similar market position.

#### IV. MARKET SHARES AND CONCENTRATION

80. The interexchange industry exhibits classic characteristics of oligopolistic competition. In oligopolistic markets there are a few large firms, and there may be a competitive fringe of much smaller firms. Supply in these markets is restricted, or concentrated, due to the small number of competing firms. Firms in an oligopolistically competitive market tend to compete on a basis other than price, through product differentiation, advertising, service, and other non-price inducements. Pricing is primarily determined by the strategic interaction between the few large firms, and between the large firms and the fringe. Generally, though, an oligopolistically competitive structure is characterized by lockstep pricing, price dispersion, non-price competition, price discrimination, widening price-cost margins and failure by suppliers to pass through input price reductions to consumers. Other indicators include increasingly complicated pricing structures, difficulties in obtaining wholesale supplies, and excess returns to new entrants, often in the form of inflated acquisition prices.

81. One of the better indicators of an industry's competitiveness is its response to exogenous changes in the cost of producing its goods or services. In a fully competitive industry, one would expect that if the cost of an input were to decrease, then that cost reduction would be passed on in full to consumers. Strikingly, this has not happened in the supply of interexchange services, prompting FCC Chairman William Kennard to write to AT&T, MCI, and Sprint "regarding the growing body of evidence which suggests that the nation's largest long distance companies are raising rates when their costs of providing service are decreasing."<sup>34</sup> The failure to pass through

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<sup>33</sup> Atlantic-ACM, *Wholesale Long Distance: Carrier Report Card*, 1996, p. 19.

<sup>34</sup> Letter by FCC Chairman William E. Kennard to the CEOs of AT&T (Michael C. Armstrong), MCI (Bert Roberts), and Sprint (William T. Esrey), February 26, 1998.

these access charge reductions is indication that the interexchange market cannot be considered workably competitive.

82. The interexchange telecommunications marketplace has all the hallmarks of an oligopolistic industry with limited competition. In such cases, mergers between the leading players are likely to exacerbate existing oligopolistic effects, as the reduction in the number of firms makes it more likely that prices can be kept above costs for sustained periods of time.

### 1. AVAILABILITY OF INTEREXCHANGE CAPACITY

83. The merging parties and their experts have asserted that there is abundant excess interexchange capacity. As evidence, they have pointed to the capacity that is being built right now and to entrants' claims of future plans. That implies that there is probably not enough capacity right now, and that entrepreneurs think that money can be made by building it. For example, Qwest CEO Joseph Nacchio recently stated that "twelve months ago, no one believed there was a long haul capacity shortage. Now, everybody believes it."<sup>35</sup>

84. Excess capacity in long-haul transmission is a fuzzy concept from the outset. Because of high placement costs, carriers lay large amounts of dark fiber in the ground and only add electronics to light it as needed. If capacity is tight, with most fiber equipped and operational, they can replace older electronics (such as OC-3) with state-of-the-art equipment (such as OC-192), thereby increasing transmission speed on the same fiber pair. Or they can use wavelength multiplexing (essentially, using different colors of light) to place more OC-192s on the same fiber pair. As increased demand drives the price of high-capacity circuits higher, I would expect to see replacement of older electronics with newer versions, expanding the capacity of existing fiber.

85. Prices for high capacity circuits have been increasing steadily over the last year. MCI raised private line prices 4% in December, 1997.<sup>36</sup> One month earlier, AT&T had raised private line prices 4% for sub-DS-1 speeds, 6% for DS-1s, and 10% for higher speeds.<sup>37</sup> AT&T had previously raised its prices in October, 1996: 3% for sub DS-1 speeds, 6% for DS-1s, and 10% for higher speeds.<sup>38</sup> These increases have coincided with increases in switched service rates from both AT&T and MCI. They are likely linked to what has been termed the "great T-1 shortage"

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<sup>35</sup> "Forbes 400 Fiber Fighters," *Forbes*, February 9, 1998, p. 46.

<sup>36</sup> David Rohde, "Right out of the gate, an MCI price hike," *Network World*, November 17, 1997, <http://www.nwfusion.com/news/1117mci2.html>.

<sup>37</sup> David Rohde, "AT&T hikes prices across the board," *Network World*, November 5, 1997, <http://www.nwfusion.com/news/1105att.html>.

<sup>38</sup> David Rohde, "AT&T raises private-line rates, lowers frame-relay charges," *Network World*, November 4, 1996, <http://www.nwfusion.com/netresources/1209sna4.html>.



in the AT&T network, characterized as a network which is "ready to burst".<sup>39</sup> AT&T has stopped accepting new orders for T-1s in many regions of the United States, declaring vast swathes as "capacity hot spots," which are illustrated in Exhibit 18.

86. In the face of these capacity constraints, it is important to note that WorldCom recently *canceled* an order for network fiber electronics.<sup>40</sup> Ciena Corporation, makers of dense wavelength division multiplexing systems, saw a major piece of its business collapse when WorldCom canceled a previously planned order. Ciena's systems increase the capacity of fiber optic cables, which puts in question WorldCom's broader motives and raises the possibility that WorldCom may already be anticipating its place in a highly concentrated, post-merger market where there may be shortages of transmission capacity.

87. In short, there seem to be regionalized supply constraints on transmission capacity, many of which have national implications. First, adding capacity cannot be relatively easy, as otherwise supply constraints and rationing could not persist. Second, concentrating the control of capacity at times of a supply shortage has particularly anticompetitive consequences, as remaining competitors have no reserve capacity which they can make available to exploit increased prices and bring relief to consumers. This reality is exactly what MCI-WorldCom expert Hall overlooks: AT&T itself would not turn to another provider to meet expanded demand, undermining the claim that the capacity market is "fluid" and "substantially competitive."<sup>41</sup>

## 2. POTENTIAL IMPACT ON FACILITIES SUPPLY

88. The merger would greatly increase horizontal concentration in the supply of interexchange services. Both MCI and WorldCom are vertically integrated providers of interexchange and local services, as well as being providers of important value-added services that use both interexchange and local networks. The merger would increase the concentration of control of the facilities necessary to supply interexchange services, such as fiber optic transmission capacity, interexchange switching capacity, SS7 connectivity, and points-of-presence.

89. The merger would also substantially reduce the number of entities that can supply value-added interexchange services such as virtual private networks and enhanced 800 services, and more generally, the enhanced features based on common channel system 7 signaling. As smaller carriers cannot yet provide many of the value-added or enhanced services which

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<sup>39</sup> David Rohde, "AT&T faces T-1 line shortage," *Network World*, February 16, 1998, <http://www.nwfusion.com/news/0216t1.html>.

<sup>40</sup> John Hanley, "Ciena Stock Tumbles after Earnings Warning," *Reuters*, February 20, 1998, [http://www.yahoo.com/headlines/980220/business/stories/ciena\\_1.html](http://www.yahoo.com/headlines/980220/business/stories/ciena_1.html).

<sup>41</sup> Hall *Declaration*, para. 72.

businesses demand, the result is an even further concentrated industry for those segments. Although there are three "major" interexchange carriers, in some segments there are only two providers, and in others, just one – especially when related to wholesale supply of enhanced services. First, as I noted earlier, AT&T over the past few years has significantly lessened its presence in wholesale/resale segments. Second, currently, only the Big Three can offer enhanced services capabilities to end-users such as virtual private networks, and none of them currently make these enhanced services available on a wholesale platform for resale. I understand that WorldCom had committed to its resellers to develop a wholesale virtual private network platform. The merger may jeopardize this commitment, and therefore may reduce the future wholesale supply of virtual private networks capability to resellers from one firm to none. Additionally, the merger would substantially concentrate the entities providing data-based value-added interexchange services, including asynchronous transfer mode (ATM) and IP transport.

90. If approved, the proposed merger will return industry concentration to pre-1996 levels, as shown in Exhibit 19. Given the barriers to entry in this industry, it seems likely that new entry would not be sufficient to offset this loss in the medium term. Therefore, the welfare loss would persist over time, as the industry's continuing downward path towards lesser concentration would be delayed by two years or more.

### **3. MEASURING MARKET CONCENTRATION**

91. Although there are a number of identifiable end-user segments, for the sake of simplicity I will look at interexchange services as a whole. The domestic interexchange services market is already highly concentrated on the basis of service revenues, as shown by "national" Herfindahl-Hirschman Index (HHI) figures in Exhibit 20. Because there are separate segments, such as large businesses and residential, in certain segments both the existing concentration and the merger-related increase in concentration may be significantly higher than the "national" figures. It is also important to note that the correct HHI measure is actually higher than the FCC's measure, which includes all interexchange revenues of reporting carriers. Often, minutes of use are sold many times before they are sold to the end-user. For example, when GTE sells a minute of use to an end-user, it is purchasing that minute from WorldCom, which itself may be purchasing it from MCI or AT&T if the POP in question is "off-net". Ideally, the computation should exclude either resellers or wholesale sales to resellers – including both is double counting. In my computation I exclude all companies identified by the FCC as pure resellers.

92. Another possible way of measuring concentration is by counting a carrier's presubscribed lines, as shown in Exhibit 21. A cursory analysis of presubscribed lines suggests that WorldCom has only a small market share, but an analysis based on lines alone is incomplete. For example, one must take into account that WorldCom and MCI respectively have the highest and second-highest revenues per line in the industry, which I also show in Exhibit 21.

93. MCI-WorldCom experts Hall, Carlton and Sider cling to route-miles of fiber as their basis for supply. This is an inferior measure of network coverage, for two reasons. First, the total investment in fiber, as estimated using a method suggested by the FCC,<sup>42</sup> is a dramatic understatement of a carrier's total investment in facilities, as shown in Exhibit 22. Second, POPs are more reflective of a carrier's business than fiber investment. For example, while Sprint's revenues are significantly lower than MCI's revenues, Sprint's nationwide fiber investment is not much lower than MCI's. However, Sprint's POP count is significantly lower than MCI's, as can be seen in Exhibit 2. In fact, there appears to be a clear relation between a carrier's POPs and its total level of interexchange revenues, as I have already shown in Exhibit 17.

94. As I have demonstrated, an appropriate measure of supply needs to reflect network coverage, which primarily has two dimensions: breadth and depth. Breadth can be measured by the number of LATAs served by a company's own POPs. Depth is measured by the number of POPs per LATA (as more POPs permit more flexible routing and more redundancy). There may be other better measurement of supply and network coverage, and this Commission should work to develop such superior measures.

95. Given the limitations of publicly available data, however, a points-of-presence count can serve as an appropriate measure of capacity or supply for the purposes of this Commission's current evaluation. Exhibit 13 clearly illustrates that, by this measure, the merger would greatly increase market concentration. Post-merger, the combined entity would control more POPs than AT&T. This concentration would raise the HHI by over 400 points, far above any threshold at which the DOJ and FTC consider that the merger would "likely create or enhance market power."<sup>43</sup>

#### **4. POTENTIAL IMPACT ON WHOLESALE SUPPLY TO RESELLERS**

96. Resale is an important mechanism in keeping the large facilities-based carriers in check, although resellers' ability to do so is limited by the Big Three's tariff and provisioning strategies. While resellers originally performed an arbitrage function by buying interexchange services in bulk at the best available rates and then reselling them to end-users at a price less than the standard retail rate, they now often act as co-producers with wholesale carriers. Resellers can provide the distinctive branding and grass-roots marketing which large carriers may not be

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<sup>42</sup> Jonathan M. Kraushaar, *Fiber Deployment Update End of Year 1996*, Federal Communications Commission, pp. 5-7, 13.

<sup>43</sup> Department of Justice and Federal Trade Commission, *Horizontal Merger Guidelines*, April 2, 1992, p. 30.

nimble enough or willing to pursue. Of course, the reseller function works only when adequate wholesale supplies are available; for example, the Big Three carriers do not offer wholesale access to their virtual private network platforms, a service that is readily available to their own retail customers.

97. If approved, the proposed merger would have a disproportionate effect on the resale segment of the interexchange market. Importantly, AT&T no longer competes to a same extent in resale segments, which reduces effective supply for resellers from three carriers to two. Exhibit 23 demonstrates the potential of this effect, in that the proposed transaction would combine the first- and third-largest wholesale suppliers to switched resellers.

## **V. PRICES AND PRICING**

### **1. LOCKSTEP PRICING**

98. Lockstep pricing occurs when market "followers" adopt the same price for a good or service immediately after the actions of the industry leader. Both MCI and Sprint appear to have followed AT&T's pricing lead in a manner that is consistent with lockstep pricing. There is substantial anecdotal evidence to support this contention. For example, Exhibits 24 through 26 show real daytime interstate rates for representative city pairs between 1987 and 1996. It is clear that in recent years the prices charged by all Big Three carriers have moved upward in a lockstep pattern. Furthermore, it appears that each time AT&T implemented or announced a price increase, MCI and Sprint followed suit.

99. Even if regulatory accounting changes can be used to explain most of AT&T's price increases during this period, this reasoning suggests that AT&T possessed market power, as otherwise it may have not been able to raise prices following price cap changes. However, the regulatory changes that affected AT&T did not impact MCI and Sprint. They found it profitable to raise their prices along with AT&T instead of seeking additional share with lower prices. Furthermore, note that basic rates net of access charges (shown in Exhibits 24 through 26) increased after 1991, despite the fact that WorldCom had by then surpassed the \$1 billion revenue mark. This suggests that competitors in this industry need to be much larger than Frontier, IXC or LCI to produce a workably competitive market. Competitors need to be facilities-based to participate effectively in the large business segment. Similarly, resellers need access to wholesale supply to compete effectively in the residential market. As the merger might eliminate the largest facilities-based carrier outside the Big Three and the one large carrier without a substantial residential base, there is a significant probability that the industry might return to this pattern of lockstep pricing once WorldCom, the maverick firm, is absorbed into MCI.

100. MCI-WorldCom's expert Robert Hall attempts to link auction theory with the pricing maneuvers of the Big Three carriers. Hall claims that, "[if] all sellers have the same cost, then

bidding theory implies that price will be forced down to cost as long as there are two or more sellers.”<sup>44</sup> However, noticeable lockstep pricing is not consistent with Hall’s claim. If the market behaved as Hall claims, then prices would only go up as a result of an increase in the cost of inputs required for interexchange service. Yet, there is no plausible explanation for a input cost increase that would affect all Big Three carriers equally or, more importantly, simultaneously. Supply costs have tended to decrease, primarily through improvements in technology (reducing switching and transmission costs) and through mandated reductions in access charges. The near-synchronized timing of the prices casts further doubt on Hall’s claim of efficient market operation. Furthermore, the data which Hall submitted in his *Declaration* indicates that there is a strong correlation between concentration, as measured by the interexchange HHI, and interexchange prices net of access charges,<sup>45</sup> as shown in Exhibit 27. Decreases in concentration seem to have gone hand in hand with lower prices (as measured by Hall). A relationship between concentration and performance is not consistent with Hall’s model of competition.

## 2. PRICE DISCRIMINATION

101. Interexchange markets are characterized by substantial asymmetries of information in favor of suppliers vis-à-vis consumers. Suppliers are typically much better informed than end-users. There are very few suppliers relative to users, which means that suppliers have much better information on market conditions than do users. This allows suppliers to leverage marketplace inefficiencies to their advantage, often to the detriment of the consumers. Interexchange rate structures and discount calling plans and options are notoriously complicated. Unless a consumer is willing to change carriers (which can be a cumbersome, time consuming process), the interexchange carriers are often unwilling to offer the consumer their lowest cost calling plan.

102. As a result, interexchange providers have been able to practice price discrimination, wherein some classes of consumers are charged more than others without cost-based justification. One particular form of price discrimination occurs when buyers are segmented into different groups and are charged different prices for the same good or service based on differences in their price elasticity of demand for the good or service. This is known as third degree price discrimination.

103. With a good that can be easily resold, attempts to price discriminate are difficult to sustain, as price differences tend to be arbitrated away. Consumers who receive low prices will resell the product or service to the consumers who are charged the higher prices. Unauthorized resale is substantially more difficult in the case for interexchange service. Resale or arbitrage without the cooperation of the provider is nearly impossible. Although interexchange carriers are

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<sup>44</sup> Hall *Declaration*, para. 23.

<sup>45</sup> Hall *Declaration*, para. 42.

required by the Communications Act of 1934 not to discriminate between their customers, they do not face the same obligations of mandated resale of all their services at regulated prices and conditions which have been imposed by the Telecommunications Act of 1996 on incumbent local exchange carriers. AT&T has been recently found liable for unlawfully discriminating against a particular reseller, and has discouraged resale by imposing tariff conditions that tended to prevent resellers from qualifying for the highly discounted tariffs that were designed to attract large corporate customers like a Coca-Cola or a Citibank.<sup>46</sup> The difficulty of arbitrage for interexchange services has allowed for widely varying prices for almost identical services across a spectrum of consumers.

104. Facilities-based carriers have exploited these asymmetries by constantly hiking their basic tariffs. There has been a substantial increase in the prices net of access charges of the Big Three, as shown in Exhibits 24 through 26. As most residential consumers purchase from a tariff, they are not notified in advance of these price changes. Their first opportunity to notice higher prices often is when they're billed. Furthermore, there are significant transaction costs to consumers in shopping for long distance service; the savings they might gain from a better calling plan rarely outweighs the costs of discovering and securing that plan. The existence of these transaction costs for consumers has not been lost on the Big Three. As David Dorman, a former Sprint insider and highly respected former CEO of Pacific Bell, has noted:

“[p]rice discrimination is increasing in the interLATA market. Under a tactic called ‘price up, promote back’ the interexchange carriers have gradually increased their retail prices over the last few years, while allowing certain customers to receive discounts.... The result is that the carriers discriminate in favor of certain customers and against many others,... [disguising] the lack of any real price competition among the interexchange carriers.”<sup>47</sup>

105. Following this pattern, AT&T has recently restructured its time-of-day bands, moving a substantial portion of off-peak hours into the full price band (7-8 A.M. weekdays). Consumers, especially senior citizens, accustomed to lower prices in this time band, were therefore required to adjust to these higher rates after the fact, often after receiving sharply higher bills. Typically, these rate increases come with little or no notification. Only a complaint could spur possible action, and even then the interexchange carriers can still “hide” behind their filed tariffs if they choose.

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<sup>46</sup> *National Communications Association, Inc. v. AT&T*, *supra* note 6.

<sup>47</sup> *Affidavit of David Dorman In Support of Pacific Telesis Group's Request for a Waiver to Permit It to Provide Interexchange Services to Customers in California*, *United States of America v. Western Electric Co., Inc. and American Telephone and Telegraph Company*, Civil Action 82-0192, January 26, 1995, para. 14. Witness held senior executive positions at both Pacific Bell and Sprint Corporation.

### 3. PRICE-COST MARGINS

106. The Big Three claim that interexchange prices net of access charges have fallen steadily over the last decade, and that these net prices are just above incremental costs. These claims, by themselves, however, are meaningless. The first effect of increased competition is that inefficient incumbents are pressured into squeezing costs from their operations. Instead, the fact that entrants can offer better priced deals despite their scale disadvantage indicates that either prices are probably above cost, or that the limited competition has allowed incumbents to let their costs drift – or some combination of both. Further, most claims by the Big Three of declining net prices are supported by flawed revenue per minute calculations and improperly constructed price indices. When prices for different user segments move in opposite directions (for example, business rates going down and residential rates going up), such average measures will be biased downwards. That is, these measures will overstate the decline in prices by construction. The customers who benefit will consume more (therefore increasing their representation in the measure), and those who lose out tend to consume less (thus decreasing their representation in the average). Taking an extreme example as an illustration, if MCI were to set an impossibly high price to only residential customers, such as \$1 per minute, its revenues per minute would probably decrease, as it would be left with only business customers, who generally pay lower per minute rates.

107. Most long distance customers are not on special rate plans – those same plans upon which the long distance companies rest their declining price claims. According to the Yankee Group, 63% of consumers nationwide are not members of a calling plan. Only 36% of AT&T's nationwide customers and 43% of Sprint's nationwide customers are on special calling plans. MCI, despite its heavy marketing of special rate plans such as "Friends and Family" and MCI One, counts only 66% of its nationwide customers on special rate plans. These data are summarized in Exhibit 28. In his *Declaration* before the FCC, Professor Hall used only MCI data to suggest that most customers *are* on plans,<sup>48</sup> which is clearly not reflective of the broader market picture. Finally, Hall used proprietary data not on the public record, which therefore cannot be independently verified.

### 4. CONSCIOUS PARALLELISM

108. In certain oligopolistic markets, competitors often engage in a form of interdependent behavior that occurs from no apparent agreement or even contact among the competing firms. Such behavior is known as *conscious parallelism*, where no firm communicates with another, but each firm expects that each of its competitors is following the same unstated, yet common, policy. This behavior is often made possible through the analysis of past prices. When each competitor examines relevant historical data (say, in the form of old tariffs or past price change announcements), it becomes clear what the rational course of action should be. Price changes tend to be mirrored by other firms (giving rise to the "lockstep pattern"), and as long as

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<sup>48</sup> Hall *Declaration*, para. 48.

participants believe that such mirroring will continue, their individual courses of action remain apparent. Prices can be raised; rivals will raise their prices in response, rather than hold them steady to gain market share. Conversely, there is a strong disincentive for lowering prices, as that would be expected to lead to a net loss; rivals would simply lower their prices, too, in order to maintain share. In other words, this does not suggest that intentional collusion or conspiracy is occurring; rather, the market environment is so defined that each player, acting rationally given its experience with rivals' reactions, chooses the same course of action. The end result is supracompetitive prices. In this kind of environment, prices tend to change slowly or only in response to new entry, as the sudden presence of a new firm of unknown aggressiveness disturbs this cozy equilibrium.

109. Executives with experience in both local and long distance markets lend practical support to the existence of this type of behavior. Former Sprint executive David Dorman noted publicly that:

“Sprint and MCI seldom failed to follow an AT&T-led retail long distance price increase. The benefits in terms of increased revenues... were simply too great to pass up,”<sup>49</sup>

adding that,

“the high-profile tussles over a relatively small class of preferred customers disguise ... the lack of any real price competition among the interexchange carriers.”<sup>50</sup>

110. The same point was recently made more emphatically by Qwest Chief Executive (and former AT&T senior executive) Joseph Nacchio:

“long distance is still the most profitable business in America, next to importing illegal cocaine.”<sup>51</sup>

111. Although many argue that the interexchange services industry is already characterized by conscious parallelism, it is undeniable that it would become worse should this merger be approved. An illustrative – although opposite – example has occurred in Connecticut. Entry by the incumbent local exchange carrier, Southern New England Telephone (SNET), quickly disrupted the parallelism that had hitherto characterized Connecticut's interstate interexchange market. SNET entered the market through the resale of Sprint's interstate service. As Robert

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<sup>49</sup>Dorman *Affidavit*, para. 13.

<sup>50</sup> *Id.*, para. 14.

<sup>51</sup> Joseph Nacchio, quoted in “At 7½¢ a Minute, Who Cares if You Can't Hear a Pin Drop?” *BusinessWeek*, December 29, 1997, p. 46.



Crandall and Leonard Waverman showed in a recent affidavit to the FCC,<sup>52</sup> SNET's entrance into Connecticut's interstate long distance market had a profound positive effect on that state's toll rates and competitive landscape, with particular effect on intrastate rates. SNET captured about 20 percent of Connecticut's interstate calls, reducing AT&T's long distance market share from 60 percent before SNET's entry to less than 50 percent by October 1996.<sup>53</sup> Crandall and Waverman noted that "AT&T offered Connecticut residents a flat 5 cents a minute rate for in-state calls made any time of day," reflecting that SNET's entry had stripped AT&T and the rest of the Big Three of their parallel pricing abilities.<sup>54</sup> In practical application, they found that SNET's entrance into Connecticut's long distance market reduced intrastate toll rates by at least 10% per year.<sup>55</sup>

112. MCI-WorldCom expert Dennis Carlton has previously supported the notion that concentration in the long distance industry is related to prices that the incumbents can charge. In a previous declaration supporting Bell Operating Company authorization to provide interexchange services, Professor Carlton (with Kenneth Arrow) noted that:

"the entry into new businesses by RBOCs may greatly benefit consumers by deconcentrating activities now offered by only a handful of suppliers or hastening the introduction of new products and services."<sup>56</sup>

Carlton's analysis is just as valid today as it was three years ago, and should apply even more forcefully to a concentration of existing suppliers as opposed to a removal of an entry barrier for *de novo* entrants. Carlton had previously concluded that:

"entry into highly concentrated industries will typically lower prices (even if the entrant is no more efficient than incumbent firms)."<sup>57</sup>

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<sup>52</sup> *Joint Affidavit of Robert Crandall and Leonard Waverman on behalf of Ameritech Michigan*, In the Matter of Application of Ameritech Michigan Pursuant to Section 271 of The Telecommunications Act of 1996 to Provide In-Region, InterLATA Services in Michigan, CC Docket No. 97-137, May 21, 1997.

<sup>53</sup> *Id.*, para. 56.

<sup>54</sup> *Id.*

<sup>55</sup> *Id.*

<sup>56</sup> Kenneth J. Arrow and Dennis W. Carlton, *Declaration*, Reply of BellSouth Corporation, NYNEX Corporation and SBC Communications, Inc. to Initial Comments on Their Motion to Vacate the Decree, *United States of America v. Western Electric Co., Inc. and American Telephone and Telegraph Company*, Civil Action No. 82-0192, May 30, 1995, p. 10.

<sup>57</sup> Kenneth J. Arrow and Dennis W. Carlton, *Affidavit*, Motion of Bell Atlantic Corporation, BellSouth Corporation, NYNEX Corporation and Southwestern Bell Corporation to Vacate the Decree, *United States of America v. Western Electric Co., Inc. and American Telephone and Telegraph Company*, Civil Action No. 82-0192, July 6, 1994, p. 4.

Carlton's characterization of the interexchange industry is in fact correct. As I have already shown in Exhibit 27, the decrease in concentration in the interexchange industry has been almost perfectly correlated with the decrease in average prices net of access charges, as measured by MCI-WorldCom's expert Hall. Exhibit 27 shows that in the interexchange industry there seems to be a very strong link between structure, conduct and performance. The same exhibit also shows that concentration cannot have decreased enough since 1994-95 to alter Carlton's earlier belief that the interexchange market would not benefit by additional entry. Finally, if a decrease in concentration of the interexchange industry is likely to be of benefit, it follows that an increase in concentration is likely to harm consumer welfare by resulting in increased prices to end users.

## **5. RESALE SEGMENT'S EFFECT ON PRICING**

113. Resellers perform a type of arbitrage function as well as representing an important marketing channel enabling new facilities-based entrants to reach many more customers than they otherwise could on their own. Thus, resellers serve to keep facilities-based carriers' prices in check – but only to the extent that they enjoy competitive access to wholesale service. Resellers aggregate orders from the facilities-based carriers, and a bigger-volume account means a greater discount. Resellers can then pass much of that discount on to end-users. Of course, the mere presence of resellers does not translate directly into a competitive market; end-users cannot get better prices from resellers if the facilities-based carriers which supply them are restricting that supply. Therefore, resellers do help keep prices in check, but because their supply is dependent on facilities-based carriers, they can only affect prices to a limited degree. More facilities-based supply – in the form of separate, competing companies – is the key to lower prices to resellers and thus end users. By easing barriers to entry in the long term, viable resale markets are the clear path to greater facilities-based supply.

114. The importance of resale in aiding entry has been noted by MCI. MCI has become one of the strongest advocates of local service resale at regulated wholesale rates, even if such rates are below cost, insisting that:

“resale of all retail telecommunications services at wholesale rates is necessary for the development of local competition. [emphasis added]”<sup>58</sup>

115. An important difference between interexchange and local services must be noted. In interexchange telecommunications regulations, there are no unbundling requirements, no regulation of network elements' pricing or availability, no regulation of wholesale prices, and no regulation of end-user retail prices. This absence of requirements makes it that much more important that competition should be maintained between specialist wholesale suppliers such as WorldCom and primarily integrated producer-retailers such as MCI. Such competition will work towards ensuring cost-based rates for wholesale interexchange service.

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<sup>58</sup> Direct Testimony of Anthony J. DiTirro on behalf of MCI Telecommunications Corporation, In Re the Investigation and Suspension of Tariff Sheets Filed by US WEST Communications, Colorado PUC Docket No. 96S-331T, filed February 21, 1997, p. 3. Emphasis Added.

116. WorldCom's approach to pricing is different from its competitors. It is the only carrier to offer access charge passthrough: access charges billed by the LEC are shown as a line item and are charged at cost, plus an administrative fee. Conversely, the Big Three carriers provide service generally at fixed rates under long term contracts and pocket any access charge reductions.<sup>59</sup> FCC Chairman William Kennard recently remarked that even he had not seen any evidence that access charge reduction savings had been passed along to consumers – despite the large carriers' public promises to do so.<sup>60</sup>

117. Resellers often bill in much smaller increments than the Big Three, some down to the exact second. Because the rounding of billed time typically moves to the next minute (or at least to the next increment), per-second or six-second billing can greatly reduce an end-user's final bill. In combination with their lower basic rates, resellers can provide substantial savings to consumers. For example, Professor Hall highlights two resellers, Unidial and VarTec Telecom, which provide some of the industry's lowest residential rates.<sup>61</sup>

118. As resellers operate on the thinnest of margins, any increase in the prices of wholesale service will very likely result in increased retail rates. Resellers have to execute their own billing, collection, advertising and marketing, all funded from a thin margin. Clearly, they will have little choice but to pass increases in wholesale rates on to consumers.

## **6. DAMAGE TO CONSUMERS**

119. A restriction of supply and these pricing maneuvers could have substantial effects on the nation's consumers. If the merger causes interexchange prices to rise by as little as one cent per minute (10% on a rate of a dime per minute), U.S. consumers would be worse off by more than \$2.2 billion per year, or approximately \$23 per household per year, as shown in Exhibit 29.

## **VI. NON-PRICE COMPETITION**

120. The asymmetries of information in the market are reinforced by the heavy advertising and marketing expenses (including frequent-caller reward plans) employed by AT&T, MCI, and Sprint. These tactics are designed to build brand loyalty, increase switching costs, and develop product differentiation. The importance of branding in the mass market is another form of non-price competition that also constitutes a significant barrier to entry. The Big Three carriers created, respectively, the 1st, 12th and 16th highest ad expenditure-supported brands across all

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<sup>59</sup> Comments of the Telecommunications Resellers Association, CC Docket No. 96-262, filed February 2, 1998, p. 7.

<sup>60</sup> William Kennard, Remarks (as prepared for delivery) at *Connecting All Americans* Conference, February 26, 1998.

<sup>61</sup> Hall Declaration, p. 16, table.

industries in 1996, as shown in Exhibit 30. AT&T alone spent nearly \$3 billion on advertising and promotion in 1996, more than WorldCom's entire capital expenditure for that year,<sup>62</sup> as shown in Exhibit 31. These huge outlays to maintain brands are essentially devices to deter entry.

121. Furthermore, long distance companies have long been recognized in advertising circles for their aggressive and confusing advertisements. Often, they are attacking their competitors' rate plans or introducing a new plan of their own. According to *USA Today*, which has conducted consumer polls measuring the popularity and effectiveness of more than 90 national ad campaigns, many of the ads by the Big Three long distance carriers "ranked among the least popular and most disliked campaigns across several industries."<sup>63</sup> Additionally, consumers "have complained that most ads for the long distance carriers have been confusing, mean-spirited and too aggressive."<sup>64</sup> This result is not surprising, given that two major motivations for these ad expenditures are to deter entry by potential competitors and to perpetuate the impression of true price competition.

## **VII. POTENTIAL IMPACT OF MERGER ON COMPETITION AMONG FACILITIES-BASED INTEREXCHANGE CARRIERS**

122. Currently, WorldCom is disrupting the cozy interexchange industry through its strategy of focusing on the wholesale segment without using a mass market brand. The merger would reduce WorldCom's incentive to supply low-price service and enhanced features to resellers.

123. Historically, WorldCom did not have the resources to build a brand like the Big Three carriers. Thus, its chosen strategy was to focus instead on wholesale supply to resellers. WorldCom can currently pursue a wholesale strategy because it has different margins and a different cost structure than its larger brethren. For example, while AT&T, MCI and Sprint have invested money to create the country's #1, #12 and #16 brands across all industries, WorldCom's brand name doesn't crack the Top 100, as shown in Exhibit 30.

124. WorldCom could not pursue the same low-price resale strategy if it had a substantial amount of high-margin end-users – a resale strategy under that scenario would cannibalize its most profitable customers. Consequently, WorldCom offers resellers some of the best (*i.e.*

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<sup>62</sup> It is important to clarify the distinction between the monetary figures presented in Exhibits 30 and 31. The brand-specific figures from Exhibit 30 are drawn from an *Advertising Age* survey which measures ad expenditures in domestic consumer media. The total-company figure from Exhibit 31 is drawn from AT&T's *1996 Annual Report*. It is likely that this figure is much higher because it includes, among other things, advertising in catalogs and business and farm publications, direct mail promotions, special events, and ad expenditures in countries other than the United States.

<sup>63</sup> Donnie Enrico, "AT&T Makes Connection with Ad Campaign," *USA Today*, May 19, 1997, p. 6B.

<sup>64</sup> *Id.*

lowest) prices, while pricing from the Big Three is consistently poor (*i.e.* high). The more end-users each of the Big Three serves, the poorer the wholesale pricing. The merger of WorldCom and MCI would undercut this pricing incentive. WorldCom would have less incentive to provide wholesale supply at favorable terms, knowing that this strategy would only undermine the profitability of its newly acquired end-users. In the end, the wholesale price to resellers would likely increase, thus harming GTE and the subscribers who purchase its resold service.

125. I have recently testified in New York that carriers with large retail customer bases have substantial economic incentives to discourage resale.<sup>65</sup> AT&T estimated that resale of its own services could result in a face value destruction of \$1 billion over five years, as resellers would undercut its wide retail margin, replacing high-margin retail sales with low-margin bulk sales. Resale would have a large negative effect as AT&T would be essentially retaining its traffic volume, albeit at lower margins. It follows that even greater "value destruction" (as perceived by carriers – these would be welfare gains to consumers and society) would occur if retail sales by a Big Three carrier were substituted by a reseller obtaining wholesale traffic from a specialist wholesale supplier such as WorldCom. Simply put, as long as WorldCom has a small retail base, the Big Three will have to provide some resale to avoid losing traffic to WorldCom. In this case, retaining some traffic at lower margins is better than losing it entirely. But if WorldCom acquires a substantial retail base, then its economic incentives fall in line with those of the Big Three: it too acquires an economic incentive to curtail resale. As AT&T's internal analysis indicates, a larger retail base and a higher retail margin translate to a greater incentive to limit its resale activities.

## **VIII. POTENTIAL IMPACT OF MERGER ON SERVICES TO RESELLERS**

### **1. WORLDCom IS THE INDUSTRY "MAVERICK"**

126. WorldCom's and MCI's experts Carlton and Sider are simply wrong when they assert that GTE has:

"no sound economic basis for ... its characterization of WorldCom as a maverick."<sup>66</sup>

127. As I show below, WorldCom has acted quite differently from the Big Three, concentrating on the wholesale supply of interexchange capacity and network services to hybrid carriers and resellers. WorldCom has historically embraced resellers and has offered them significantly better terms and conditions. In a very real sense, an interexchange reseller is a large

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<sup>65</sup> See Harris Testimony in *National Communications Association, Inc. v. AT&T*, *supra* note 6.

<sup>66</sup> Carlton and Sider, *FCC Affidavit*, para. 57. (*Supra* note 31).

customer of the facilities-based carrier, but one with quite specialized needs. Thus, there are several dimensions of service quality to resellers:

- provisioning (speed by which customers are added)
- billing
- availability of enhanced features
- ability to advertise the underlying provider to convey service quality
- ability to re-brand the service obtained from the facilities-based provider
- service pricing and access charge passthrough<sup>67</sup>

128. As shown in Exhibit 32, WorldCom's level of provisioning is superior to that of the Big Three. AT&T and MCI have often used slow and unreliable provisioning to disrupt the competitiveness of resellers. Both of these carriers have been party to numerous lawsuits filed by resellers, many of whom claimed to have been put out of business by the facilities-based carriers' practices.<sup>68</sup> I note that in a recent civil action where I was called to testify, AT&T was found liable of unlawfully discriminating against a particular reseller.<sup>69</sup>

129. WorldCom's billing service also appears superior to that of the Big Three. On a scale of one to ten from a recent survey, WilTel (a WorldCom subsidiary) scored more than a full point higher than AT&T, MCI and Sprint. Survey respondents criticized AT&T's and Sprint's billing services mainly for their inflexibility.<sup>70</sup> I understand that WorldCom also offers resellers free PIC processing, and has committed to offer dual-PIC processing shortly (allowing different providers for interLATA and intraLATA toll). The Big Three apparently charge for each individual PIC change and have not offered to implement dual-PIC processing for resellers.

130. It appears that only the Big Three are currently capable of providing enhanced services such as virtual private networks and traffic-routable 800 service, and they do not make these available for resale. I understand that WorldCom has shown itself willing to consider a specific schedule for developing platforms to offer enhanced services for resale, but it is unclear how this schedule might be pushed back if the merger is consummated.

131. WorldCom allows resellers to inform potential customers that WorldCom is the underlying provider of the network service, allaying consumers' fears of inferior quality from a

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<sup>67</sup> This aspect of service is discussed in *supra* section "Resale Segment's Effect on Pricing," page 34.

<sup>68</sup> See, e.g., *Central Office Telephone, Inc. v. American Telephone and Telegraph Company*, Nos. 94-36116, 94-36156, 108 F.3d 981, 1997 U.S. App. LEXIS 3395, *International Telecommunications Exchange Corporation v. MCI Telecommunications Corporation*, Civil Action No. 1:92-CV-1751-FMH, 892 F.Supp. 1520, U.S. Dist. LEXIS 9964, and *National Communications Association, Inc. v. American Telephone and Telegraph Company*, 92 Civ. 1735 (LAP), U.S. F.Supp. 1131, 1992 U.S. Dist. LEXIS 19504.

<sup>69</sup> *National Communications Association, Inc. v. AT&T*, *supra* note 6.

<sup>70</sup> Atlantic-ACM, *Wholesale Long Distance: Carrier Report Card*, 1996, pp. 44, 48.

reseller. After the end user has service, WorldCom then allows the reseller to re-brand WorldCom's service, such that when the end-user calls a repair number, she receives a reseller-branded message or operator. Again, neither practice is matched by the Big Three. In general, the Big Three carriers strive to prevent the end-user from being informed at the marketing stage that the reseller is obtaining the underlying service from the Big Three. Once the customer is receiving service from the resellers, the Big Three will limit re-branding to remind the end-user of the underlying facilities supplier, possibly hoping to win the customer back.

132. In conclusion, the Big Three fall far short of WorldCom in providing quality service to resellers, and they often withhold from the wholesale segment the more lucrative or strategically important enhanced services – such as virtual private networks – that they offer only at retail.

## **2. ONE-STOP SHOPPING, BUNDLING, AND THE IMPORTANCE OF ENHANCED SERVICES**

133. The modern communications user prefers all services from a sole provider, a practice known as *one-stop shopping*. The Yankee Group recently found that 66 percent of U.S. households would prefer one company to serve their local and long distance needs.<sup>71</sup> In most regions, more than half of those preferring one-stop shopping would select from one of the Big Three long distance carriers as their primary provider.<sup>72</sup>

134. It is likely that these preferences for bundled services extend to business customers. And because of these consumer preferences, resellers need access to enhanced services such as virtual private networks and traffic-routable 800 service to attract sophisticated telecommunications users. The preference for one-stop shopping means that the suppliers which cannot offer basic and enhanced services as a bundle will be at a disadvantage in the marketplace. As a result of the increase in its retail share of the interexchange market WorldCom may no longer act as the “maverick”, and act to restrict supply to resellers of enhanced services. Consequently, if this merger is consummated and WorldCom halts development of its wholesale platform, resellers would be a much diminished competitive force than they otherwise could have been.

135. There are strong economies of scope between serving business and residential users, as their distinct demands peak at different times of the day. Business usage peaks during daytime hours, while residential demand is more distributed through off-peak morning and (particularly) evening periods. Because these different peaks tend to balance each other out, suppliers serving both business and residential segments will have higher network utilization. Thus, suppliers that cannot readily attract business users, due to a lack of enhanced features, will be at a further disadvantage when competing for residential customers. A less balanced traffic load has a

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<sup>71</sup> Yankee Group Press Release, *Yankee Group Survey Finds AT&T Is Top Choice for Consumers Interested in Single Communications Provider*, January 20, 1998, [http://www.yankeegroup.com/press\\_releases/at&t.html](http://www.yankeegroup.com/press_releases/at&t.html).

<sup>72</sup> *Id.*

greater impact on network costs. To further promote telecommuting in the United States, this Commission must consider the connection between this business/residential mesh and a carrier's ability to provide enhanced services.

### 3. NETWORK QUALITY AND COVERAGE

136. Interexchange networks owned by hybrid carriers (*i.e.*, those that rely on leased transport and resale of other interexchange networks) appear to suffer from quality problems. Boston-based consultants Atlantic-ACM reviewed several networks and found that in terms of network quality, hybrid carriers' networks significantly trail those of facilities-based carriers.<sup>73</sup> One of the larger hybrids, Frontier Communications, scored significantly lower than its peers. As a result, Excel Communications, the fifth largest interexchange firm in terms of presubscribed lines, migrated the bulk of its traffic away from Frontier Communications. By way of explanation, Excel noted "the failure of Frontier to add the network capacity needed to handle the company's growth."<sup>74</sup> The primary beneficiary of this migration was WorldCom, with portions of traffic also being awarded to MCI and IXC Communications.

137. WorldCom's superior quality vis-à-vis second-tier carriers (for example, Frontier or LCI) is due to its larger coverage of the country through more POPs, more switches, more owned fiber, and simply more experience in running an interexchange network. Its better POP coverage results in lower transport charges. To terminate a call in a LATA where the carrier does not have a POP, the second-tier carriers must often route the call to another carrier's POP via leased lines or switched transport, as indicated by their coverages shown in Exhibit 2. More often than not, this means that both the POP and the transport capacity must be leased from AT&T, MCI or Sprint. Therefore, if the merger were consummated, switched resellers and regional carriers looking to fill in remote-area gaps in their coverage would only be able to turn to the Big Three.

### 4. EFFECTS OF ADVERSE CHANGES IN WHOLESALE SUPPLY

138. GTE's activities range from providing local service, wireless service and value-added services across the country. It is currently limited to the provision of interexchange services on a resale basis, primarily to residential and small business consumers. GTE and other resellers are still largely dependent on WorldCom for wholesale supply, because of the smaller carriers' poor quality and lack of nationwide coverage, as I have addressed earlier. The adverse impact on GTE and its consumers generalizes to other resellers, and GTE serves as a convenient illustrative example.

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<sup>73</sup> Atlantic-ACM, *Wholesale Long Distance: Carrier Report Card*, 1996, p. 30.

<sup>74</sup> Excel Communications Inc., "Management's Discussion and Analysis of Financial Condition and Results of Operations," *1996 Annual Report on Form 10-K*, February 13, 1997.



139. To effectively compete in all aspects of interexchange segments, GTE must be able to maintain a strong relationship with a national facilities-based interexchange carrier. WorldCom is exactly that carrier. WorldCom will soon provide a full range of services – both basic and enhanced – to GTE, while the smaller, hybrid carriers fall short on options. Additionally, the small regional networks are not viable for GTE's national plans, and a multi-vendor solution is not operationally efficient for GTE. GTE needs to purchase wholesale service from a carrier with an extensive network of POPs. Carriers such as Frontier, Qwest, or Williams cannot currently provide GTE with the network capabilities it needs as a reseller.

140. GTE's objection to the proposed merger has its basis in GTE's current relationship with WorldCom and how the merger would damage that relationship. GTE is a reseller of interexchange service in all states, with WorldCom as its primary wholesale supplier. This arrangement has allowed GTE to continue growing its commercial presence in areas outside of its local exchange and wireless markets. Similarly, where GTE is a provider of local exchange or wireless service, it has been particularly successful in offering interexchange service conveniently combined with these other communications services. GTE has approximately 1.7 million long distance customers nationwide, making it the most successful joint marketer of long distance service in the country. According to J.D. Power and Associates, "GTE represents almost half of all [of the nation's] bundled customers."<sup>75</sup> Suppressing the growth of this initial resale business will hinder GTE and other resellers in their expansion efforts. Without a strong resale business, GTE cannot develop the brand awareness, sales networks and operational arrangements needed to build the transition to facilities-based service. Even significant capital investment by GTE could do little to overcome the barriers to entry in a concentrated industry such as interexchange.

## **IX. REVIEW OF POTENTIAL EFFICIENCIES**

### **1. EFFICIENCIES OVERVIEW**

141. WorldCom and MCI claim that any anticompetitive effects of their merger will be outweighed by the numerous and substantial cost savings they will achieve through the merger, as outlined in their Joint Proxy Statement. While I do believe that there are economies of scale, scope and density in the provision of interexchange services, the efficiencies that WorldCom and MCI may achieve in merging cannot outweigh the likely anticompetitive effects of this horizontal concentration.

142. First, the proposed cost savings are largely undocumented, and the supporting financial projections should be treated as mere assertions until they have been subject to effective scrutiny.

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<sup>75</sup> J.D. Power and Associates Press Release, *J.D. Power and Associates Analysis Finds Dramatic Increase in Number of Residential Customers Interested in Purchasing Long Distance Service From Their Local Company*, January 6, 1998, <http://www.jdpower.com/releases/80106tel.html>.